

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P236345

Luminaire Tested: **4SWLED-52HL-LW-UNV-L850-CD1-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: P236345  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1709-316-27)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 4SWLED-52HL-LW-UNV-L850-CD1-U  
Description: METALUX SWLED LINEAR LUMINAIRE  
4FT FIXTURE WITH 2 ROW LED, WIDE LENS  
Light Source: (224) 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

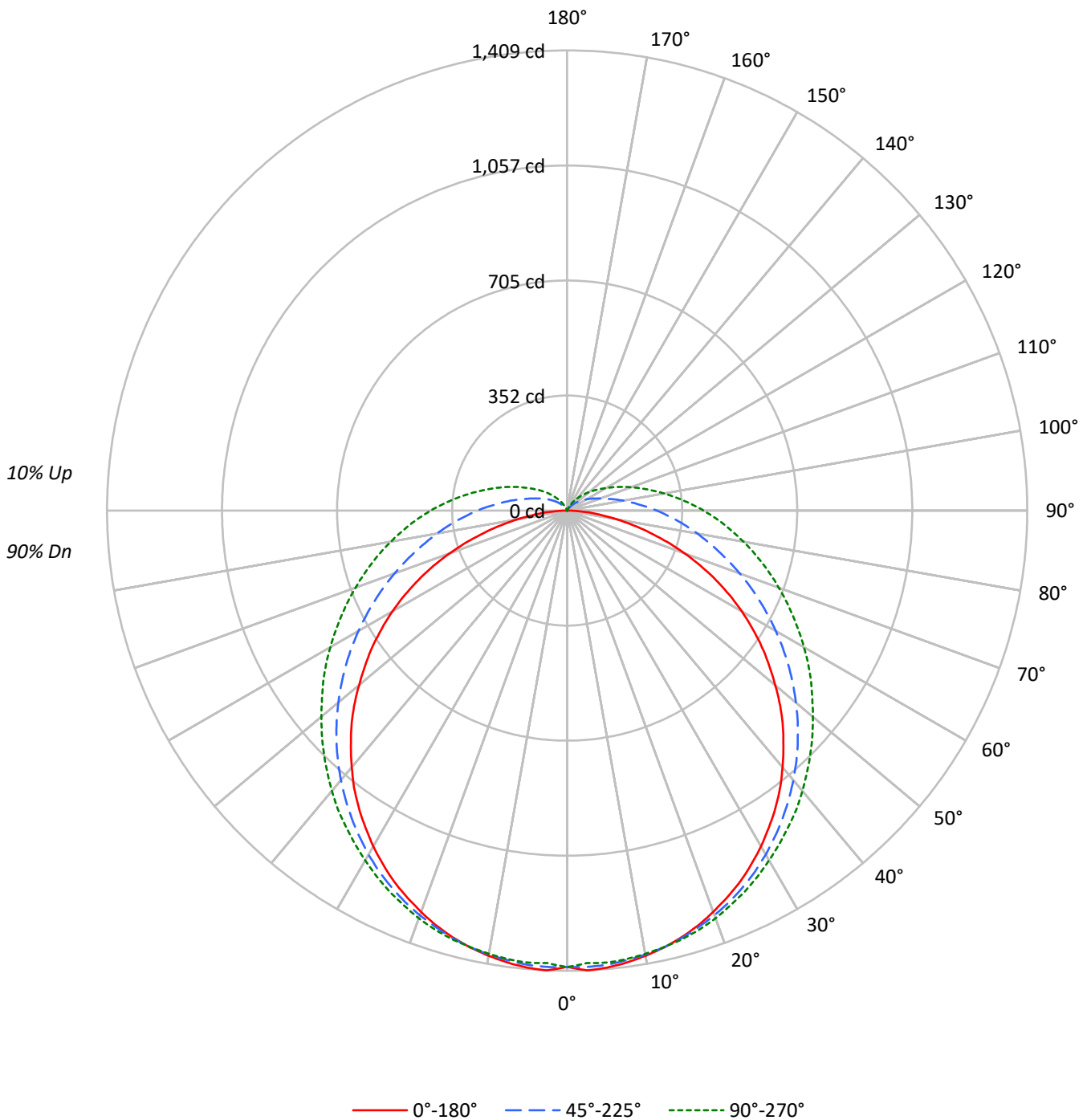
Lumens per Lamp: N/A  
Luminaire Lumens: 5310.0 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.38' x L: 4' x H: 0.15')  
CIE Type: Direct

Input Watts (W): 47.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

TEST NUMBER: P236345

CATALOG NUMBER: 4SWLED-52HL-LW-UNV-L850-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P236345

CATALOG NUMBER: 4SWLED-52HL-LW-UNV-L850-CD1-U

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	104	98	93	88	100	95	90	86	89	85	82	83	80	77	78	75	73	70
2	94	84	77	70	90	82	75	69	76	71	66	72	67	63	67	63	60	57
3	85	73	65	57	82	71	63	56	67	60	54	62	57	52	59	54	50	47
4	78	65	55	48	74	63	54	47	59	51	45	55	49	44	52	47	42	40
5	71	58	48	41	68	56	47	40	52	45	39	49	43	38	47	41	36	34
6	65	52	42	36	63	50	41	35	47	40	34	45	38	33	42	36	32	29
7	61	47	38	31	58	45	37	31	43	35	30	41	34	29	38	32	28	26
8	56	42	34	28	54	41	33	27	39	32	27	37	31	26	35	29	25	23
9	53	39	30	25	51	38	30	24	36	29	24	34	28	23	32	27	22	21
10	49	36	28	22	47	35	27	22	33	26	21	32	25	21	30	24	20	19

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10028	10028	10028
5°	10086	9799	9680
10°	10022	9551	9399
15°	9951	9318	9145
20°	9856	9075	8890
25°	9761	8839	8629
30°	9635	8587	8368
35°	9501	8325	8134
40°	9325	8057	7915
45°	9148	7792	7698
50°	8896	7515	7494
55°	8657	7242	7335
60°	8343	6963	7181
65°	7907	6699	7058
70°	7287	6456	6997
75°	6431	6266	6990
80°	5301	6178	7067
85°	3905	6234	7282



TEST NUMBER: P236345

CATALOG NUMBER: 4SWLED-52HL-LW-UNV-L850-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.5	2.5
10°-20°	381.9	7.2
20°-30°	584.5	11.0
30°-40°	716.5	13.5
40°-50°	766.8	14.4
50°-60°	735.5	13.9
60°-70°	634.4	11.9
70°-80°	488.7	9.2
80°-90°	338.8	6.4
90°-100°	220.6	4.2
100°-110°	140.2	2.6
110°-120°	85.6	1.6
120°-130°	49.0	0.9
130°-140°	24.1	0.5
140°-150°	9.1	0.2
150°-160°	1.8	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1098.9	20.7
0°-40°	1815.3	34.2
0°-60°	3317.7	62.5
0°-90°	4779.6	90.0
90°-120°	446.4	8.4
90°-150°	528.6	10.0
90°-180°	530.0	10.0
0°-180°	5310.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1398	1398	1398	1398	1398	
5°	1405	1392	1396	1390	1390	133
15°	1353	1343	1355	1357	1359	382
25°	1254	1248	1273	1279	1287	577
35°	1112	1114	1150	1168	1181	695
45°	934	948	999	1033	1054	720
55°	728	759	828	884	912	650
65°	502	551	649	727	762	496
75°	264	346	480	579	618	280
85°	67	183	336	442	482	73
90°	1	124	275	380	418	5
95°	0	84	219	320	356	0
105°	0	42	136	221	252	0
115°	0	23	87	146	171	0
125°	1	11	54	95	111	1
135°	1	3	29	57	67	1
145°	1	1	11	27	34	0
155°	1	1	1	7	10	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



TEST NUMBER: P236345

CATALOG NUMBER: 4SWLED-52HL-LW-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1397.5	1397.5	1397.5	1397.5	1397.5
2.5°	1409.3	1395.5	1398.8	1393.5	1386.9
5°	1404.7	1391.5	1396.1	1389.5	1389.5
7.5°	1396.1	1384.3	1388.9	1384.9	1385.6
10°	1384.3	1372.4	1380.3	1377.0	1378.3
12.5°	1370.4	1358.6	1369.8	1367.1	1369.1
15°	1352.6	1343.4	1355.3	1356.6	1359.2
17.5°	1332.2	1324.3	1337.5	1341.4	1345.4
20°	1307.8	1301.9	1318.4	1322.3	1328.9
22.5°	1281.5	1276.2	1297.3	1300.6	1307.8
25°	1253.8	1248.5	1272.9	1278.9	1287.4
27.5°	1221.5	1219.6	1245.9	1254.5	1263.0
30°	1187.3	1186.0	1216.3	1226.1	1236.7
32.5°	1149.7	1151.0	1184.0	1197.2	1209.7
35°	1112.2	1113.5	1150.4	1167.5	1181.3
37.5°	1071.3	1075.3	1114.8	1135.2	1153.0
40°	1025.9	1035.1	1077.2	1102.3	1120.7
42.5°	980.4	992.9	1039.0	1068.0	1087.1
45°	934.3	948.1	998.8	1033.1	1053.5
47.5°	884.9	902.6	957.3	996.2	1018.6
50°	831.5	855.9	914.5	960.0	982.4
52.5°	780.1	807.8	871.0	922.4	946.1
55°	728.0	759.0	827.5	883.5	911.9
57.5°	673.4	707.0	782.7	844.0	875.0
60°	618.0	656.2	737.9	805.8	837.4
62.5°	560.7	604.2	693.1	766.3	799.9
65°	502.1	550.8	649.0	727.4	762.3
67.5°	442.8	498.1	605.5	690.5	726.1
70°	382.1	446.1	562.0	652.9	689.8
72.5°	322.8	395.3	519.8	614.7	653.6
75°	263.5	345.9	479.7	579.1	618.0
77.5°	206.9	299.1	440.1	544.2	583.1
80°	154.8	256.3	404.5	509.3	548.2
82.5°	106.7	218.1	369.6	475.7	513.9
85°	67.2	183.2	336.0	442.1	481.6
87.5°	32.3	152.2	303.7	410.5	449.3
90°	1.3	124.5	274.7	379.5	417.7
92.5°	0.0	102.1	246.4	349.2	386.8
95°	0.0	83.7	219.4	320.2	356.4
97.5°	0.0	69.2	195.7	293.2	328.1
100°	0.0	56.7	174.6	267.5	301.1
102.5°	0.0	48.1	154.8	243.1	275.4
105°	0.0	41.5	136.4	220.7	251.7
107.5°	0.0	35.6	121.9	200.3	229.3
110°	0.0	30.3	108.7	180.5	208.9



TEST NUMBER: P236345

CATALOG NUMBER: 4SWLED-52HL-LW-UNV-L850-CD1-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	26.4	96.9	163.4	189.1
115°	0.0	23.1	87.0	145.6	170.6
117.5°	0.0	19.1	77.7	131.1	153.5
120°	0.0	16.5	69.2	117.9	137.7
122.5°	0.7	13.8	61.3	106.1	123.9
125°	0.7	11.2	54.0	94.9	111.3
127.5°	0.7	8.6	47.4	84.3	99.5
130°	0.7	6.6	40.8	74.5	87.6
132.5°	0.7	4.6	34.9	65.2	77.7
135°	0.7	2.6	29.0	56.7	67.2
137.5°	0.7	1.3	23.7	48.1	58.0
140°	0.7	0.7	19.1	40.8	49.4
142.5°	0.7	0.0	14.5	34.3	40.8
145°	0.7	0.7	11.2	27.0	33.6
147.5°	0.7	0.7	7.9	21.1	27.0
150°	0.7	0.7	4.6	15.2	20.4
152.5°	0.7	0.7	2.0	10.5	15.2
155°	0.7	0.7	0.7	6.6	9.9
157.5°	0.7	0.7	0.0	2.6	5.3
160°	1.3	0.7	0.0	0.0	1.3
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)